Title (en)

COPPER ALLOY STRIP EXHIBITING IMPROVED DIMENSIONAL ACCURACY AFTER PRESS-WORKING

Title (de)

KUPFERLEGIERUNGSBAND MIT VERBESSERTER FORMGENAUIGKEIT NACH EINER PRESSBEARBEITUNG

Title (fr)

BANDE EN ALLIAGE DE CUIVRE DE PRÉCISION DIMENSIONNELLE AMÉLIORÉE APRÈS TRAVAIL À LA PRESSE

Publication

EP 3604574 B1 20240228 (EN)

Application

EP 18770302 A 20180320

Priority

- JP 2017054877 A 20170321
- JP 2018011144 W 20180320

Abstract (en)

[origin: EP3604574A1] Provided is a Corson alloy having improved bending workability and also having high dimensional accuracy after press-working. A copper alloy strip which is a rolling material, the rolling material containing from 0 to 5.0% by mass of Ni or from 0 to 2.5% by mass of Co, the total amount of Ni + Co being from 0.2 to 5% by mass; from 0.2 to 1.5% by mass of Si, the balance being copper and unavoidable impurities, wherein the rolling material satisfies the relationship: A⁰/A ≤ 1.000, in which A⁰represents a projected area of an indentation remaining after carrying out a Vickers hardness test by maintaining a square pyramidal indenter for 10 seconds while applying a test force with a load of 1 kg to a surface of a base material and releasing the test force; and A represents an area connecting vertices of the indenter, and wherein the rolling material satisfies the relationship: 0.1 ≤ I₍₂₀₀₎/I₀₍₂₀₀₎< 1.0, in which I₍₂₀₀₎represents an X-ray diffraction intensity from a (200) plane on the surface, and I₀₍₂₀₀₎represents an X-ray diffraction intensity from a (200) plane of a pure copper powder standard sample.

IPC 8 full level

C22C 9/06 (2006.01); **C22F 1/08** (2006.01); **H01B 1/02** (2006.01)

CPC (source: EP KR US)

B21B 3/00 (2013.01 - US); **C22C 1/02** (2013.01 - US); **C22C 9/02** (2013.01 - KR); **C22C 9/04** (2013.01 - KR); **C22C 9/05** (2013.01 - KR); **C22C 9/06** (2013.01 - EP KR US); **C22C 9/10** (2013.01 - KR); **C22F 1/08** (2013.01 - EP KR US); **H01B 1/026** (2013.01 - EP); B21B 2003/005 (2013.01 - US)

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 3604574 A1 20200205; **EP 3604574 A4 20201104**; **EP 3604574 B1 20240228**; CN 110462075 A 20191115; CN 110462075 B 20210831; JP 2018154912 A 20181004; JP 6440760 B2 20181219; KR 102278796 B1 20210719; KR 20190119619 A 20191022; TW 201840862 A 20181116; TW I656228 B 20190411; US 11203799 B2 20211221; US 2020024695 A1 20200123; WO 2018174079 A1 20180927

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